Walk-In Environette®

Control Panel

Our Largest Environmental Chambers!

- **Microprocessor-based main temperature controller**
- **Ideal for pharmaceutical stability tests, sample storage and shelf life testing**
- **Available in three sizes and two temperature ranges**

Product Description

- Two temperature ranges: Ambient +10° to 60 °C or 0°C to 60°C (Models with "A").
- Temperature control and uniformity of ±0.5°C.
- Zero-switching, microprocessor-based main temperature controller with multi-range, auto tuning PID control for fast control response with minimal overshooting.
- Modular panel construction with 4" of foamed-in-place polyurethane insulation for optimum performance.
- Fluorescent work light housed in a vapor-proof fixture included.
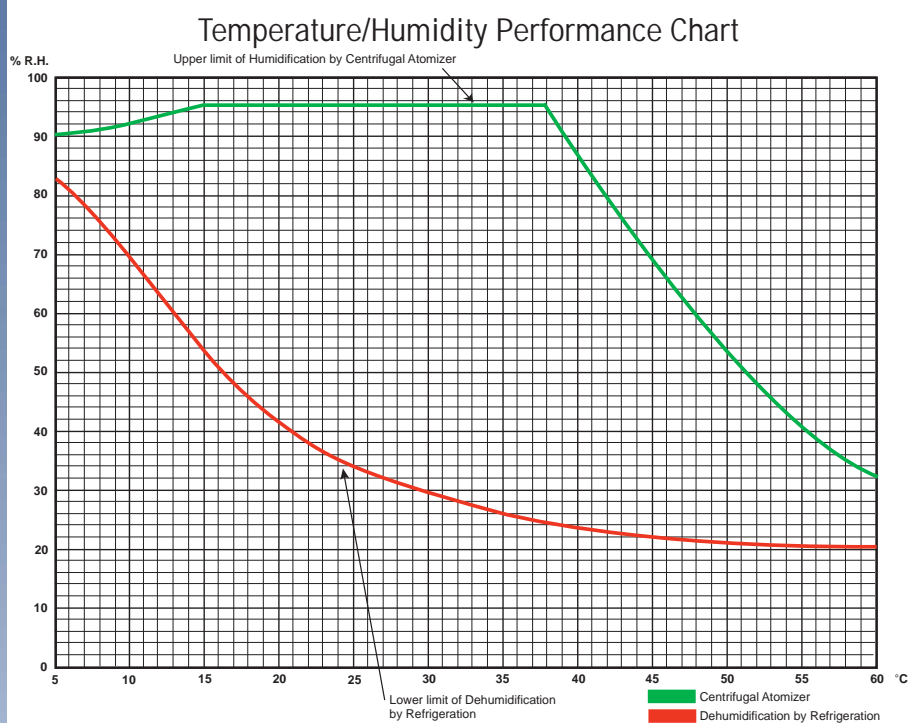- Corrosion resistant stainless steel interior.

R26—chart recorder option

This chart shows the temperature/humidity set points which can be achieved by chambers with temperature and humidity control. To use the chart, locate the desired temperature set point along the horizontal axis, and the desired humidity set point along the vertical axis. Follow the line of the temperature set point upward until it intersects the humidity set point line. The area between the red and green lines indicates temperature and humidity parameters that are attainable by the reach-in chambers.

Temperature/Humidity Performance Chart

Upper limit of Humidification by Centrifugal Atomizer

Lower limit of Dehumidification by Refrigeration

— Centrifugal Atomizer
— Dehumidification by Refrigeration

ORDERING INFORMATION

Model #	Chamber Size Inches (cm)	Volts	Electrical Hz	Watts	Operating Temp Range °C	US List Price
704S	48 (122) x 48 (122)	240	60	1600	Ambient +10° to 60°C	
704S-2	48 (122) x 48 (122)	220	50	1600	Ambient +10° to 60°C	
704AS	48 (122) x 48 (122)	240	60	3400	0° to 60°C	
704AS-2	48 (122) x 48 (122)	240	50	3400	0° to 60°C	
706S	48 (122) x 72 (183)	240	60	1600	Ambient +10° to 60°C	
706S-2	48 (122) x 72 (183)	220	50	1600	Ambient +10° to 60°C	
706AS	48 (122) x 72 (183)	240	60	3400	0° to 60°C	
706AS-2	48 (122) x 72 (183)	240	50	3400	0° to 60°C	
708S	48 (122) x 96 (244)	220	60	1600	Ambient +10° to 60°C	
708S-2	48 (122) x 96 (244)	220	50	1600	Ambient +10° to 60°C	
708AS	48 (122) x 96 (244)	220	60	3400	°0 to 60°C	
708AS-2	48 (122) x 96 (244)	220	50	3400	°0 to 60°C	

208V also available. Contact Customer Service.

For a quotation, please refer to the Environmental Chamber Questionnaire following the Chamber section on page 48.

ACCESSORIES

Model #	Description
A	Refrigeration System—For applications requiring 0°-60°C.
H	Humidification by Centrifugal Atomizer—Standard method for providing humidity. Atomizer is located at top of chamber, sends heated vapor mist into ceiling air plenum. Includes a deionization cartridge assembly. Please refer to performance chart for achievable temperature and humidity parameters.
D	Dehumidification by Refrigeration for controlled humidity at ambient and lower temperatures.
V	Vapor Proof Duplex outlet
P	Access port, 2"
W	Remote Alarm Junction

Refer to pg. 47 for drawings and dimensions.

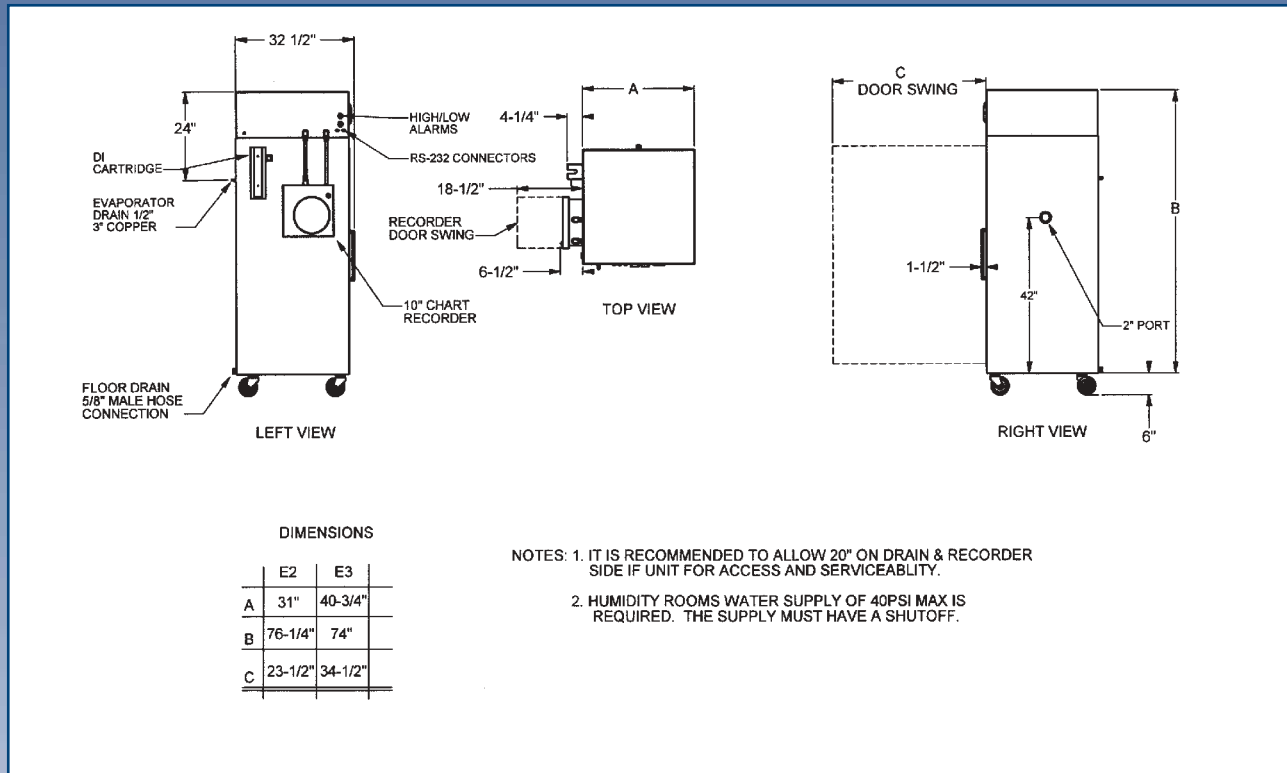| Model #	Description
R27	1-pen, 10" (25cm) Chart Recorder, 7 day temperature only, 120/240V, 50/60 Hz
R26	2-pen, 10" (25cm) Chart Recorder, 7 day temperature and humidity, 120/240V, 50/60 Hz
R31	Digital recorder with RS485 capabilities, 1-pen temperature.
R32	Digital recorder with RS485, 2-pen temperature and humidity
C1	RS232 for temperature
C2	RS232 for temperature and humidity
M	Microprocessor Controller with Ramping Capability for temperature
585-036-00	Replacement deionization cartridge (1 supplied with "H" option)

IQ/OQ, installation and uniformity packages are also available. For more information, please contact Customer Service.

Reach-In Environette®

DIMENSIONS

	E2	E3
A	31"	40-3/4"
B	76-1/4"	74"
C	23-1/2"	34-1/2"

NOTES: 1. IT IS RECOMMENDED TO ALLOW 20" ON DRAIN & RECORDER SIDE IF UNIT FOR ACCESS AND SERVICEABLITY.

2. HUMIDITY ROOMS WATER SUPPLY OF 40PSI MAX IS REQUIRED. THE SUPPLY MUST HAVE A SHUTOFF.

Models Recommended for Stability Testing of Drugs and Pharmaceuticals

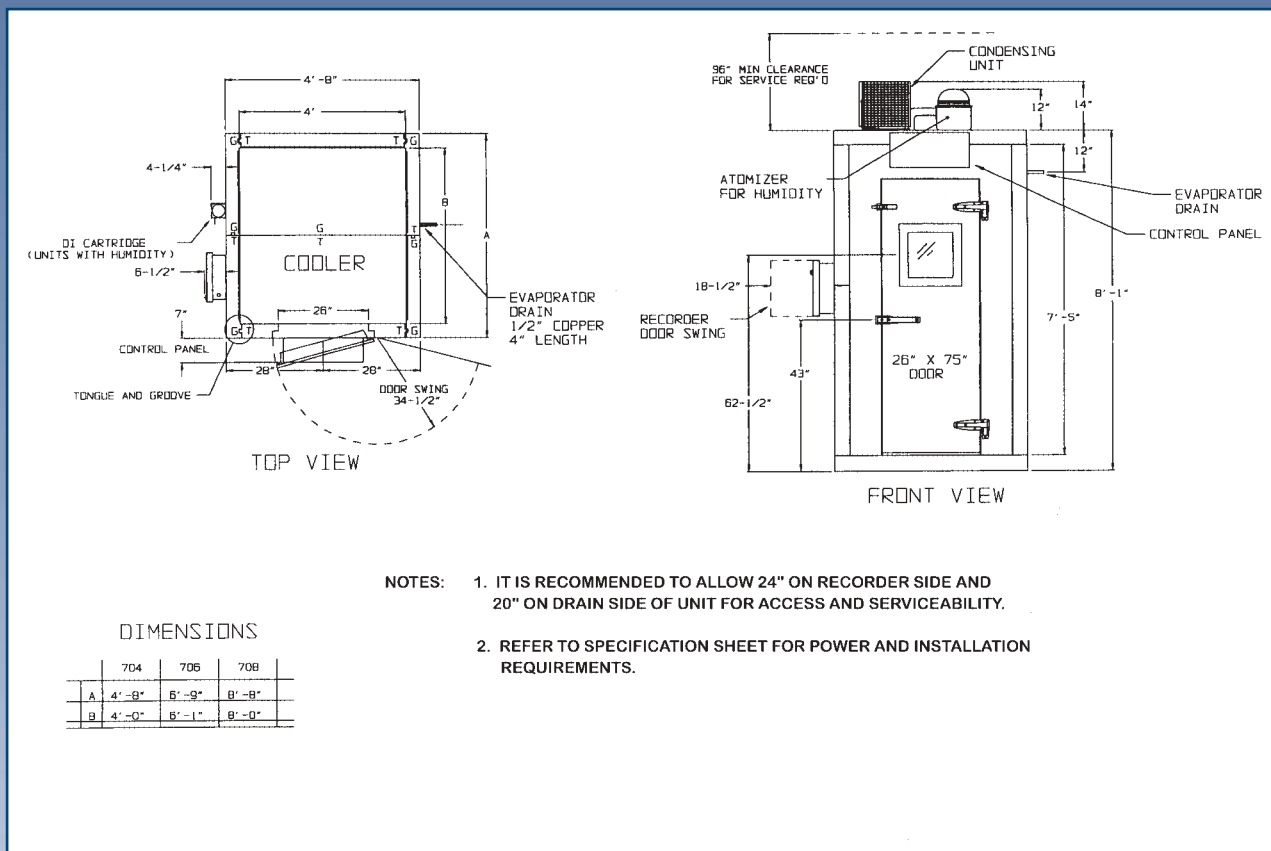| Long Term Tests (25°C—60% RH) Chambers with heat and refrigeration	Accelerated Tests (40°C—75% RH) Chambers with heat only
E(C)22560	E(C)24075
E(C)32560	E(C)34075

PRODUCT SPECIFICATIONS

Capacity	Exterior Dimensions Inches (cm)			Chamber Dimensions Inches (cm)			Weight Lb. (kg)
	W	H	D	W	H	D	
29 cu. ft. (821 l)	40.75 (104)	80 (203)	32.5 (84)	36.75 (93.3)	52.75 (135)	26 (66)	600 (272)
19 cu. ft. (538 l)	31 (79)	82 (208)	32.5 (84)	26.75 (67.9)	52.75 (135)	26 (66)	450 (204)

ORDERING INFORMATION AND ACCESSORIES

Model #		US List Price
810-123-02	Extra Shelf, 36" W x 23.2" D (29 cu. ft. models)	*For a quotation, please refer to the Environmental Chamber Questionnaire following the Chamber section on p. 48.*
810-390-02	Extra Shelf, 25.5" W x 23.2" D (19 cu. ft. models)	
585-036-00	Replacement deionization cartridge (1 supplied with humidity units)	

Walk-In Environette®

TOP VIEW

FRONT VIEW

DIMENSIONS

	704	706	708
A	4'-8"	6'-9"	8'-8"
B	4'-0"	6'-1"	8'-0"

NOTES:
1. IT IS RECOMMENDED TO ALLOW 24" ON RECORDER SIDE AND 20" ON DRAIN SIDE OF UNIT FOR ACCESS AND SERVICEABILITY.

2. REFER TO SPECIFICATION SHEET FOR POWER AND INSTALLATION REQUIREMENTS.

PRODUCT SPECIFICATIONS

Model #	Chamber Dimensions Inches (cm) W	H	D	Exterior Dimensions Inches (cm) W	H	D	Shelf Area sq. ft. (sq. m)	Linear Shelf Space ft. (m)	Temperature Stability	Shipping Weight Lb. (kg)
704S, 704S-2	48 (122)	82 (208)	50 (127)	56 (142)	107 (272)	58 (147)	56.5 (5)	46 (14)	±0.5°C	1200 (544)
704AS, 704A5-2	48 (122)	82 (208)	50 (127)	56 (142)	107(272)	58 (147)	56.5 (5)	46 (14)	±0.5°C	1550 (703)
706S, 706S-2	48 (122)	82 (208)	73 (185)	56 (142)	107 (272)	81 (205)	75.5 (7)	70 (21)	±0.5°C	1740 (789)
706AS, 706AS-2	48 (122)	82 (208)	73 (185)	56 (142)	107 (272)	81 (205)	75.5 (7)	70 (21)	±0.5°C	2000 (907)
708S, 708S-2	48 (122)	82 (208)	96 (244)	56 (142)	107 (272)	104 (264)	94.5 (8.7)	94 (28.6)	±0.5°C	2200 (998)
708AS, 708AS-2	48 (122)	82 (208)	96 (244)	56 (142)	107 (272)	104 (264)	94.5 (8.7)	94 (28.6)	±0.5°C	2200 (998)

ORDERING INFORMATION AND ACCESSORIES

US List Price

For a quotation, please refer to the Environmental Chamber Questionnaire following the Chamber section on p. 48.

QUESTIONNAIRE
Design Your Own Environmental Chamber!

Thank you for your inquiry about the high-quality Lab-Line Instruments environmental chambers. This simple "do-it-yourself" form is a fast and easy way for you to design your new environmental chamber. By telling us what you need, we will develop an accurate quote for you in just five business days upon receiving your form! Check the boxes below so we can begin designing the most appropriate and cost-effective environmental chamber for you! If you have questions on any part of this form, call our technical service staff at 800-553-0039.

Q.1 For what application will you use your environmental chamber?

❏ Pharmaceutical stability tests ❏ Photolysis tests ❏ Shelf life tests
❏ Packaging/paper breakdown tests ❏ Genetic studies ❏ Chromatography tests
❏ Tissue culture studies ❏ Growth chamber studies ❏ Serum studies
❏ Enzyme assays ❏ B.O.D. studies ❏ Animal studies

Q.2 What type of environmental chamber are you looking for? ❏ Bench-top ❏ Reach-in ❏ Walk-in

Q.3 Indicate the maximum available space for the chamber. _____Width x _____Height x _____Depth

Q.4 If you have requirements on the interior dimensions of your environmental chamber, please list them below.

_____Width x _____Height x _____Depth _____Volume (cu. ft.)

Q.5 What temperature does your application require? Procedure set point = _____°C Second temperature if desired = _____°C

Q.6 If your application requires controlled humidification, what are the temperature and humidity set points you require?

Primary parameters _____°C _____% RH Second parameters _____°C _____% RH

NOTE: Using the performance charts in the "Environmental Chamber" section of your catalog, plot your application temperature and humidity requirements. *Your parameters must fall between the red and green lines.*

Q.7 What are the ambient conditions of the area where the chamber will be located?

Maximum temperature _____°C Maximum humidity _____% RH
Minimum temperature _____°C Minimum humidity _____% RH

Q.8 Check any accessories you would require:

❏ Access ports ❏ Fluorescent lighting
❏ Chart recorder ❏ Vapor proof duplex outlets
❏ Programmable controller ❏ RS232

Q.9 Power requirements Volts_____ Amps_____ Hz_____ Phase_____
Please consult with your facility maintenance to help answer correctly.

Your name: _____ Title: _____

Your company: _____

Address/City/State/Zip: _____

Your phone: _____ Your fax: _____

Your e-mail: _____ Date: _____

CONGRATULATIONS! You have successfully designed your very own environmental chamber! Please copy and fax this form to Barnstead International Technical Service at (563) 589-0516 for a quotation.

Plant Growth

Model 844

For All Your Plant Growth Needs!

- **Chamber size of 20 cu.ft.**
- **Temperature control from -5°C to 55°C
  (+10°C to 55°C with lights on)**
- **24 hour timer/programming for lighting and temperature**

Product Description

- Durable enamel-finished steel chamber construction.
- Day and night thermostats with selector switch for automatic operation.
- Adjustable Hi-Lo thermostats provide temperature back-up to safeguard samples.
- LED display for accurate temperature readings.
- Four 20 watt adjustable fluorescent lamps plus two fixed 25 watt incandescent lamps for more than 1000 foot candles of illumination.
- Includes four shelves and five door shelves for additional capacity.

Application

- Designed to facilitate many botanical and agricultural research applications including seed germination studies, plant pathology, plant tissue culture studies and plant genetic research.

PRODUCT SPECIFICATIONS

Model #	Chamber Volume cu. ft. (l)	Shelf Area sq. ft. (sq. m)	Chamber Dimensions Inches (cm)			Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)
			W	H	D	W	H	D	
844	20 (566)	12.1 (1.1)	27 (69)	50 (127)	20 (51)	32 (81)	77.9 (198)	29.5 (75)	391 (177)
844-2	20 (566)	12.1 (1.1)	27 (69)	50 (127)	20 (51)	32 (81)	77.9 (198)	29.5 (75)	391 (177)
845*	20 (566)	12.1 (1.1)	27 (69)	50 (127)	20 (51)	32 (81)	77.9 (198)	29.5 (75)	391 (177)
845-2*	20 (566)	12.1 (1.1)	27 (69)	50 (127)	20 (51)	32 (81)	77.9 (198)	29.5 (75)	391 (177)

These models feature controlled humidification from ambient dew point to 70% R.H.,+5% R.H.

ORDERING INFORMATION

Model #	Volts	Electrical Hz	Watts	Required Amps	Operating Temp Range °C without lights*	US List Price
844	120	60	2400	20	-5° to 55°C	$7,272.00
844-2	220	50	2400	20	-5° to 55°C	$7,568.00
845	120	60	2400	20	-5° to 55°C	$9,238.00
845-2	220	50	2400	20	-5° to 55°C	$9,238.00

Temperature range with all lights on is +10° to 55°C

ACCESSORIES

Model #	Description	US List Price
844-6	Extra Shelves for 844 and 845	$106.00
019-168-00	Deionization assembly for models 845 and 845-2 (wall mount)	$273.00

Plant Growth

Model 850

Large Plants? No Problem!

- **28 cu. ft. chamber capacity**
- **Combination lamp switches allow for five stages of lighting**
- **24-hour timer for temperature and lighting**
- **Controlled humidity is optional**

Product Description

- Durable all-steel chamber construction, finished in white acrylic enamel.
- Day and night thermostats with easy-to-read LED readout.
- Adjustable Hi-Lo protection thermostats to safeguard samples.
- Lockable control box for added security.
- Four fixed incandescent lamps and ten fluorescent lamps provide 1000 foot candles of illumination.
- Includes six adjustable shelves to accommodate various sample sizes.

Application

- Ideal for many research applications such as plant and seed environmental response studies, germination acceleration or retardation of seeds and microbiological culture propagation.

Model 850 Control Panel

PRODUCT SPECIFICATIONS

	Chamber Dimensions Inches (cm)			Overall Dimensions Inches (cm)			Shipping Weight
Model #	W	H	D	W	H	D	Lb. (kg)
850	22.5 (57)	58 (147)	23 (58)	36 (91)	71.5 (182)	31 (79)	456 (207)
850-1	22.5 (57)	58 (147)	23 (58)	36 (91)	71.5 (182)	31 (79)	456 (207)

ORDERING INFORMATION

		Electrical		Operating Temp	Relative Humidity	US List
Model #	Volts	Hz	Amps	Range °C	Range*	Price
850	120	60	20	-5° to 55°C (No Lights) +15° to 55°C (All Lights)	Ambient to 75%	$10,539.00
850-1	220	50	20	-5° to 55°C (No Lights) +15° to 55°C (All Lights)	Ambient to 75%	$10,539.00

* Ambient to 40% with all lights on
H option must be installed

ACCESSORIES (FACTORY INSTALLED)

Model #	Description	US List Price
H	Humidification by Spray Nozzle	$1,724.00
019-168-00	Deionization assembly for model 850H (wall mount)	$273.00

Educational Plant

Model 846

For Your Countertop!

- **Ideal for growing plants in the classroom**
- **Automatic 24 hour programming**
- **Sliding glass doors for easy access and viewing**

Product Description

- Lighting consists of 4 fluorescent and 3 incandescent lamps for various lighting levels (customer supplied.)
- 2 interior electrical outlets to easily accommodate other electrical equipment.
- Main power switch, lamp switch, heater output, fan, thermostat and 24 timer/programmer switches all have on/off indicator lights.
- Front control panel can be removed for maintenance without disturbing experiments in progress.

- Model 846 series combine large viewing area, simplified temperature controls and an economical price.

Applications

- Designed to accommodate plant, animal and culture studies in the classroom setting.

PRODUCT SPECIFICATIONS

Model #	Chamber Volume cu. ft. (l)	Shelf Area sq. ft. (sq .m)	Chamber Dimensions Inches (cm)			Overall Dimensions Inches (cm)			Shipping Weight Lb. (kg)
			W	H	D	W	H	D	
846	14 (396)	2.2 (.20)	50 (127)	29 (74)	17 (43)	52 (132)	38 (97)	18.5 (47)	236 (107)
846-3	14 (396)	2.2 (.20)	50 (127)	29 (74)	17 (43)	52 (132)	38 (97)	18.5 (47)	236 (107)

ORDERING INFORMATION

Model	Electrical Volts	Hz	Watts	US List Price
846	120	60	800	$3,055.00
846-3	220	50	800	$3,055.00

ACCESSORIES

Model #	Description	US List Price
846-8	Chamber Shelf 6.5" x 49.5" (16.5 x 125.7 cm)	$159.00
846-12	Mobile Chamber Stand 53" W x32" H x 23.5" D (134.6 x 81.3 x 59.7 cm)	$708.00
846-13	Planting Tray (Pkg. of 4)	$126.00